Forest Service

Southwestern Region
Regional Office

333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

File Code: 3420 **Date:** January 2, 2008
Route To:

Subject: Summary of Douglas-fir Tussock Moth Pheromone Trapping Results in the Sacramento Mountains

To: Forest Supervisor, Lincoln National Forest

In 2000, after remaining at undetectable levels in New Mexico for more than 20 years, Douglas-fir tussock moth (DFTM) caterpillars were observed in considerable numbers at the Dale Resler Boy Scout Camp (refer to 3420 Biological Evaluation 01-R3-01 and 3420 Evaluation dated January 30, 2004). Although the caterpillars were numerous, defoliation at the Boy Scout Camp was largely undetectable. In 2001, new areas of DFTM defoliation were detected on approximately 810 acres of the mixed conifer host type along James Canyon east of Cloudcroft. Because DFTM outbreaks can develop rapidly with little advanced warning, pheromone trapping and cocoon/egg mass surveys were conducted at several sites in the Sacramento Mountains to assess population levels. The methods, procedures, and results of these surveys were described in our 3420 Biological Evaluation, 01-R3-01 sent to you in October 2000. Although this outbreak collapsed in 2002, we have continued to monitor DFTM population trends in the Sacramento Mountains using sticky traps baited with a synthetic version of the female sex attractant or pheromone which is a thousand times weaker than the natural pheromone emitted by the female moth. As indicated in our 3420 Biological Evaluation, 01-R3-01, when trap catches average 25 or more male moths per trap, visible defoliation may be expected to occur within the next two years.

Five traps were deployed at each of the sites trapped. Areas trapped and trap averages are summarized in Table1.

Although DFTM populations spiked to detectable levels at the Dale Resler Boy Scout Camp in 2000 and James Canyon in 2001, our pheromone trapping results show tussock moth populations, forest-wide, were well below the threshold numbers required to predict that defoliation was likely occur within the next two years. The outbreaks that occurred in 2000 and 2001 may have been anomalies that quickly collapsed. Because no male moths were trapped in 2007, we suspect that DFTM populations and defoliation will remain at low, undetectable levels again in 2008.

Table 1. 2000 - 2007 Douglas-fir Tussock Moth Trapping Results

Year	2000	2001	2002	2003	2004	2005	2006	2007
Location								
1. Devils Canyon	0.6	0	0	0	0	0	0	0
2. Observatory along SH 244	1.6	0	0	0	0	0	0	0
3. Dale Resler Boy Scout Camp	2	1	0	0	0	0	6.4	0
4. James Canyon Lookout	4.4	0.2	0.2	0	0	0.5	0.4	0
5. Bear Spring Canyon	3.4	0.8	0	0	0	0	0	0
6. FS Road 5662	6	0	0	0	0	0	0	0
7. Karr Canyon	0	0	0	0	0	0	0	0
8. FS Road 64	2	0	0	0	0	0	0	0
9. Rio Penasco	0.2	0	0	0	0	0	0	0
10. Tularosa Canyon (MAIR)	1.4	0.2	0	0	0	2.6	0	0
11. Elk Springs (MAIR)	1.2	0	0	0.2	0	0.4	0	0
13. Sleepy Grass CG	N/A	0	0	0	0	0	0	0
14. Apache CG	N/A	0	0	0	0	0	0	0

We will be deploying DFTM pheromone traps again in 2008 to monitor tussock moth population trends. If you have additional sites you want monitored, let me know.

If you have any questions regarding this evaluation, please call me at (505) 842.3287 or e-mail trogers@fs.fed.us.

/s/ Terrence J. Rogers
TERRENCE J. ROGERS
Entomologist, Forest Health, New Mexico Zone

cc: Gilbert Zepeda
Debra Allen-Reid
Kathryn Wallace
Mickey Mauter
David A Conklin
Jacque A Buchanan
Frank R Martinez